

ABSTRACT OF THE DISCLOSURE

A method and apparatus are provided for generating a rate model (115) for use in determining a rate to be applied with respect to an instance of a product or service, system or process. The rate may relate for example to utilisation of a resource, for example to a charging rate to be applied with respect to use of a product or service. The rate model comprises: (i) data (205, 210) defining a rating space having at least one dimension defined by an attribute of the system, process, product or service; (ii) a rating vector definition comprising at least one rate parameter; and (iii) data (225, 230) which defines distinct regions in the rating space over which the defined rating vector is invariant, and which defines the respective invariant rating vector (235) for each distinct region (225, 230). A rate applicable to a particular instance of a product or service instance is determined by identifying a defined region (225, 230) containing the instance and hence the invariant rate parameter values (235) of the applicable invariant rating vector.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
27 May 2004 (27.05.2004)

PCT

(10) International Publication Number
WO 2004/045142 A1

(51) International Patent Classification⁷: H04L 12/14

Pietro [GB/GB]; 11 Ravenscraig Road, New Southgate, London, Greater London N11 1AE (GB).

(21) International Application Number:

PCT/GB2003/004958

(74) Agent: LLOYD, Barry, George, William; BT Group Legal Intellectual Property Department, Holborn Centre, 8TH Floor, 120 Holborn, London EC1N 2TE (GB).

(22) International Filing Date:

12 November 2003 (12.11.2003)

(25) Filing Language:

English

(81) Designated States (*national*): CA, US.

(26) Publication Language:

English

(84) Designated States (*regional*): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

(30) Priority Data:

0226488.5 13 November 2002 (13.11.2002) GB

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

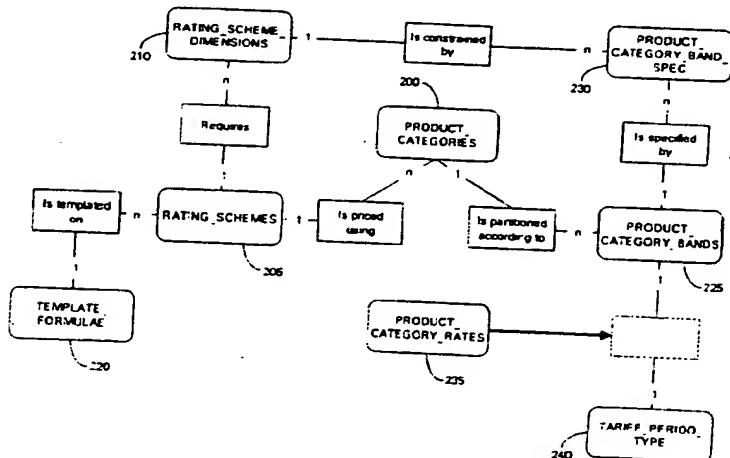
(71) Applicant (*for all designated States except US*): BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY [GB/GB]; BT Group Legal, Intellectual Property Department, PP CSA ,BT Centre, 81 Newgate Street, London EC1A 7AJ (GB).

(72) Inventor; and

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(75) Inventor/Applicant (*for US only*): GIOBERTI, Stefano,

(54) Title: RATE MODELLING



WO 2004/045142 A1

(57) **Abstract:** A method and apparatus are provided for generating a rate model (115) for use in determining a rate to be applied with respect to an instance of a product or service, system or process. The rate may relate for example to utilisation of a resource, for example to a charging rate to be applied with respect to use of a product or service. The rate model comprises: (i) data (205, 210) defining a rating space having at least one dimension defined by an attribute of the system, process, product or service; (ii) a rating vector definition comprising at least one rate parameter; and (iii) data (225, 230) which defines distinct regions in the rating space over which the defined rating vector is invariant, and which defines the respective invariant rating vector (235) for each distinct region (225, 230). A rate applicable to a particular instance of a product or service instance is determined by identifying a defined region (225, 230) containing the instance and hence the invariant rate parameter values (235) of the applicable invariant rating vector.